

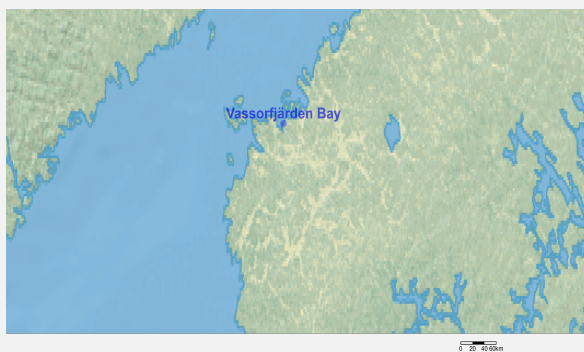


Ramsar Information Sheet

Published on 27 April 2023

Update version, previously published on : 1 January 2005

Finland Vassorfjärden Bay



Designation date	2 February 2004
Site number	1538
Coordinates	63°11'35"N 21°59'11"E
Area	1 537,00 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The estuary is one of the largest in Finland with a diverse and representative wetland bird fauna both in breeding and migration periods. The reed zone is exceptionally wide and water depth is low in the whole wetland. The wetland is for the most part surrounded by forests and on the northwestern and southern side by agricultural land. It is an important breeding and staging area for waterfowl and waders during migration and molting periods and provides habitat for the threatened Russian Flying Squirrel. The estuary is an important fish spawning area, but sediments, nutrients and occasional acid waters from the river Kyrönjoki weaken its significance for fish reproduction. The eastern shores are densely built and a main road crosses the southern edge of the bay. Nonetheless, birdwatching remains a significant activity.

Vassorfjärden is an ancient bay, that has turned to shallow water due to the glacio-isostatic rebound. The bay has provided landing sites for the surrounding hamlets. The probability of archaeological underwater remains is high.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Finnish Environment Institute (SYKE), Natural Environment Centre
Postal address	PO Box 140 FI-00251 Finland

National Ramsar Administrative Authority

Institution/agency	Metsähallitus, Parks and Wildlife Finland
Postal address	PO Box 94 FI-01301 Vantaa Finland

2.1.2 - Period of collection of data and information used to compile the RIS

From year	2010
To year	2017

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Vassorfjärden Bay
Unofficial name (optional)	Vassofjärden

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input type="radio"/> No <input checked="" type="radio"/>
(Update) B. Changes to Site area	No change to area
(Update) For secretariat only. This update is an extension	<input type="checkbox"/>

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	No
(Update) Optional text box to provide further information	Wetland types and species, and ecosystem services have been reassessed according to current knowledge, but there are no changes to the ecological character.

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<2 file(s) uploaded>

Former maps	0
-------------	---

Boundaries description

The site follows the boundaries of the Natura 2000 site FI0800056 Vassorfjärden SAC/SPA.
--

2.2.2 - General location

a) In which large administrative region does the site lie?	Ostrobothnia
b) What is the nearest town or population centre?	Vöyri / Mustasaari

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No

2.2.4 - Area of the Site

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Boreal region
Other scheme (provide name below)	Southern boreal forest vegetation zone

Other biogeographic regionalisation scheme

Vegetation zones of Finland according to Ruuhijärvi et al. 2000.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

Other reasons

A representative example of a near-natural wetland type (estuarine waters) in the EU Boreal region, including 1 priority natural wetland habitat type of the EU Habitat Directive, the Fennoscandian deciduous swamp woods. The most common types of the EU Habitat Directive are habitats of codes 1130*, 7140 and 9030*. Marginal ones are 1630*, 9050, 9080*, 91D0*, 1150* and 9070.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 4 : Support during critical life cycle stage or in adverse conditions

3.2 - Plant species whose presence relates to the international importance of the site

<no data available>

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA/MAMMALIA	<i>Pteromys volans</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Habitats Directive - Annexes II, IV	
CHORDATA/AMPHIBIA	<i>Rana arvalis</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Habitats Directive - Annex II	
Birds																	
CHORDATA/AVES	<i>Anas acuta</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	migration
CHORDATA/AVES	<i>Anser erythropus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>	National Red List - CR; EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Anser fabalis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - VU	migration
CHORDATA/AVES	<i>Arenaria interpres</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	migration
CHORDATA/AVES	<i>Aythya ferina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	migration
CHORDATA/AVES	<i>Aythya fuligula</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	migration
CHORDATA/AVES	<i>Calidris alba</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		migration
CHORDATA/AVES	<i>Calidris ferruginea</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		migration
CHORDATA/AVES	<i>Calidris temminckii</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	migration
CHORDATA/AVES	<i>Chlidonias niger</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - CR; EU Birds Directive - Annex I	migration

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA/AVES	<i>Chroicocephalus ridibundus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	National Red List - VU	migration
CHORDATA/AVES	<i>Circus aeruginosus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Cygnus cygnus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Grus grus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Haliaeetus albicilla</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	National Red List - VU; EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Hydroprogne caspia</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Larus fuscus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	migration
CHORDATA/AVES	<i>Larus minutus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Limicola falcinellus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		migration
CHORDATA/AVES	<i>Limosa lapponica</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Mergellus albellus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Philomachus pugnax</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	National Red List - CR	migration
CHORDATA/AVES	<i>Pluvialis apricaria</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Pluvialis squatarola</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		migration
CHORDATA/AVES	<i>Podiceps auritus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN; EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Sterna hirundo</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Sterna paradisaea</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Sternula albifrons</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN; EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Tringa erythropus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		migration
CHORDATA/AVES	<i>Tringa glareola</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	migration
CHORDATA/AVES	<i>Tringa totanus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - VU	migration

1) Percentage of the total biogeographic population at the site

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Boreal Baltic coastal meadows	<input checked="" type="checkbox"/>		EU Habitats Directive - Annex I
Transition mires and quaking bogs	<input checked="" type="checkbox"/>		EU Habitats Directive - Annex I
Estuaries	<input checked="" type="checkbox"/>		EU Habitats Directive - Annex I
Natural forests of primary succession stages of landupheaval coast	<input checked="" type="checkbox"/>		EU Habitats Directive - Annex I
Fennoscandian deciduous swamp woods	<input checked="" type="checkbox"/>		EU Habitats Directive - Annex I
Bog woodland	<input checked="" type="checkbox"/>		EU Habitats Directive - Annex I

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Vassorfjärden is a long and winding sea bay, formed by River Kyrönjoki estuary. The northern part is composed of bays Österfjärden and Söderfjärden. The area includes ca. 1 200 ha of water. The waters are shallow because of silt brought by the river. The reed zone is very extensive, formed by Common Reed (*Phragmites australis*) in the north and Common Club-rush (*Schoenoplectus lacustris*) in the south. Shores are diverse with silt-rocky and turf shores and extensive sedge (*Carex* spp.) meadows. Because of sedimentation and landupheaval the vegetation is in a continuous process of change. The wetland is for the major part surrounded by forests and on the north-western side also by agricultural land.

4.2 - What wetland type(s) are in the site?

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
A: Permanent shallow marine waters		1		
F: Estuarine waters		1	1329	Representative
J: Coastal brackish / saline lagoons		4	2	Representative

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		2	237	
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		3	17	

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
9: Canals and drainage channels or ditches		4	

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Primary forests	122
Herb-rich forests	36
wooded pastures	1

4.3 - Biological components

4.3.1 - Plant species

Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTAMAGNOLIOPSIDA	<i>Impatiens glandulifera</i>	Potential	unknown

4.3.2 - Animal species

Invasive alien animal species

Phylum	Scientific name	Impacts	Changes at RIS update
CHORDATAMAMMALIA	<i>Neovison vison</i>	Actual (minor impacts)	unknown
CHORDATAMAMMALIA	<i>Nyctereutes procyonoides</i>	Actual (minor impacts)	unknown

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfc: Subarctic (Severe winter, no dry season, cool summer)

Storms and high water level in summertime due to climatic change have sometimes destroyed birds' nests.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Gulf of Bothnia/ Bothnian Bay

4.4.3 - Soil

Mineral

(Update) Changes at RIS update No change Increase Decrease Unknown

Organic

(Update) Changes at RIS update No change Increase Decrease Unknown

No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

Please provide further information on the soil (optional)

Mainly silt and clay and glacial ground moraine.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water	<input type="checkbox"/>	No change
Marine water	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
Marine	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

Depth of water: Shallow, mostly <5 m. Water-level high in spring because of melting snow. Abrupt changes in water level may occur in spring due to breaking up of the ice.

4.4.5 - Sediment regime

Sediment regime unknown

4.4.6 - Water pH

Unknown

4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Mixohaline (brackish)/Mixosaline (0.5-30 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Dystrophic

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

Please provide further information on dissolved or suspended nutrients (optional):

General water quality passable. River Kyrönjoki dystrophic.

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ii) significantly different site itself:

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Wetland non-food products	Livestock fodder	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	Low
Recreation and tourism	Nature observation and nature-based tourism	Medium
Spiritual and inspirational	Aesthetic and sense of place values	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Major scientific study site	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	High

Other ecosystem service(s) not included above:

Significant values include birdwatching.

Within the site: 10s

Outside the site: 100s

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

(a) within the Ramsar site:
Private-owned (1 % state-owned).

(b) in the surrounding area:
Private-owned.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

South Ostrabothnia Centre for Economic Development, Transport and the Environment

Provide the name and/or title of the person or people with responsibility for the wetland:

Ms. Johanna Kullas, senior inspector

Postal address:

P.O. box 262
65101 Vaasa
Finland

E-mail address:

johanna.kullas@ely-keskus.fi

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Housing and urban areas	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dredging		Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Canalisation and river regulation	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Roads and railroads	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Hunting and collecting terrestrial animals	Low impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified/others			<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Dams and water management/use	Medium impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Vegetation clearance/land conversion		Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species	Medium impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Agricultural and forestry effluents	High impact	High impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Please describe any other threats (optional):

Dredging of boating channels, embankment creation and acid waters leaking from embankments have destroyed vegetation in many places, and wetland area has diminished by hundreds of hectares. The former significance as an important spawning area has weakened as fish and bottom fauna have disappeared in certain areas. The estuary is affected by actions (like agriculture and forestry) taking place in the whole Kyrönjoki catchment area. Eastern shores are densely built and a main road crosses southern edge of the bay. American Mink (*Mustela vison*) and Raccoon Dog (*Nyctereutes procyonoides*) may cause damage to the breeding of birds.

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Vassorfjärden SAC/SPA	http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=FI0800056	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Waterfowl Habitat Conservation Programme			whole

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Partially implemented

Other:

The site is included in the Natura 2000 Network, designated both as SPA and SCI, and in the Waterfowl Habitats Conservation Programme. Hunting of waterfowl is prohibited in an area of ca. 100 ha, which is based on the decision of the local Game Management Society.

Conservation of the Natura 2000 site will be carried out under the Nature Conservation Act.

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

Further information

A flood protection general plan is in preparation.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Plant species	Implemented
Animal species (please specify)	Implemented

The breeding bird fauna was surveyed in 1982–84, 1996 and in 2016. The macrophyte vegetation was studied in 1982 and 2016. The fungus *Hypocreopsis lichenoides* was studied in 2017. Moor frog and flying squirrel were studied in 2017.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Hyvärinen, E., Juslén, A., Kemppainen, E., Uddström, A. & Liukko, U.-M. (eds.) 2019. The 2019 Red List of Finnish Species. Ympäristöministeriö & Suomen ympäristökeskus. Helsinki. 704 p

Jaaksi, V. 1985. Vassorfjärdenin ja Österfjärdenin pesimälinnusto 1982–84. Siipipeili 1.

Leivo, M., Asanti, T., Koskimies, P., Lammi, E., Lampolahti, J., Mikkola-Roos, M. & Virolainen, E. 2002. Suomen tärkeät lintualueet FINIBA. BirdLife Suomen julkaisuja 4, Suomen graafiset palvelut, Kuopio.

Meriläinen, J. 1984. Macrophyte vegetation at the River Kyrönjoki estuary in 1982. Vesientutkimuslaitoksen julkaisuja 57, Vesihallitus.

Tiainen, J., Mikkola-Roos, M., Below, A., Jukarainen, A., Lehikoinen, A., Lehtiniemi, T., Pessa, J., Rajasärkkä, A., Rintala, J., Sirkiä, P. & Valkama, J. 2016: Suomen lintujen uhanalaisuus 2015 – The 2015 Red List of Finnish Bird Species. Ympäristöministeriö & Suomen ympäristökeskus. 49 p.

Working group on the need for forest protection in southern Finland and Ostrobothnia. Chairman Ruuhijärvi, R., Secretaries Kuusinen, M., Raunio, A. and Eisto, K. 2000. Forest protection in southern Finland and Ostrobothnia. The Finnish Environment 437. Ministry of the Environment.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



An aerial view over Vassorfjärden estuary. (Hannu Vallas, 28-07-2011)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation